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Implementing the Defense Business Operations Fund, the case of the Naval Air Reserve at Point Mugu

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THESIS

IMPLEMENTING THE DEFENSE BUSINESS OPERATIONS FUND, THE CASE OF THE NAVAL AIR RESERVE AT POINT MUGU

by

John D. Ward

December 1993

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The purpose of this thesis is to study the implementation of the Defense Business Operations Fund (DBOF) in October 1991 at the Naval Air Weapons Center, Point Mugu and its effects on the Naval Air Reserve (NAR). First, the DBOF system and unit costing concepts are explained. The focus then shifts to the industrial activities of the DBOF at Point Mugu. The effects of the DBOF implementation on the business relationship between the Aircraft Maintenance Department (AMD) and the NAR are analyzed. In particular, the factors used in determining output measures for customer billings by the AMD at Point Mugu are explored. An identification of the cost drivers causing the recent annual cost increases from the maintenance work performed on the NAR's aircraft is also made. Problem areas associated with the DBOF at Point Mugu and how they effect the NAR are discussed.

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Implementing the Defense Business Operations Fund, The Case of the Naval Air Reserve at Point Mugu

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Submitted in partial fulfillment
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ABSTRACT

The purpose of this thesis is to study the implementation of the Defense Business Operations Fund (DBOF) in October 1991 at the Naval Air Weapons Center, Point Mugu and its effects on the Naval Air Reserve (NAR). First, the DBOF system and unit costing concepts are explained. The focus then shifts to the industrial activities of the DBOF at Point Mugu. The effects of the DBOF implementation on the business relationship between the Aircraft Maintenance Department (AMD) and the NAR are analyzed. In particular, the factors used in determining output measures for customer billings by the AMD at Point Mugu are explored. An identification of the cost drivers causing the recent annual cost increases from the maintenance work performed on the NAR's aircraft is also made. Problem areas associated with the DBOF at Point Mugu and how they effect the NAR are discussed.

TABLE OF CONTENTS

I. INTRODUCTION

A. OVERVIEW

The changing environment resulting from the ending of the Cold War era has led the Department of Defense (DoD) to initiate a military reassessment called the Bottom-Up Review. The Review, completed in September 1993, encompasses all the major elements of defense planning. The Review outlines new military strategies in force structure, weapons modernization, and new defense initiatives as well as plans to carry out these strategies.

The Review calls for a smaller, less expensive,and more efficient defense force structure. Because of the high priority placed on downsizing military structure and budget, the enormous defense support organization is also being proportionately re-aligned. Efficient financial management in both areas, force operations and force support is critical. This thesis will focus on the area of force support.

With a large share of Navy funds going to support industrial operations, managers should be interested in the efficiency of these activities. Support activities have a direct effect on the Navy's budget. Each dollar spent in the support establishment competes with requirements of the operating forces. It is therefore imperative that financial

management in support activities emphasize efficiency and cost control to maximize the resources available to the operating forces.

The Department of Defense (DoD) has made various efforts in the past to improve the financial management system. Presently, the financial management for all defense activities is in transition. The new DoD strategy is to establish a more businesslike buyer-seller approach for recurring DoD requirements. The concept adopted expands the use of revolving funds.

A revolving fund uses a working capital fund to finance its operations, and can use a number of approaches for charging customers, one being a unit cost system. This cost concept takes into consideration the producer's total cost for a good or service and transfers the total cost to the unit or output produced. This cost is then paid by the customer. The unit cost concept has advantages and disadvantages and will be discussed later. Combining multiple activities which use unit costing and the revolving fund concept within the DoD has evolved into what is currently called the Defense Business Operations Fund (DBOF).

B. OBJECTIVES

The objective of this thesis is to evaluate the former Navy Industrial Fund (NIF) costs incurred at Naval Air Weapons

Center (NAWC) at Point Mugu by the Naval Air Reserve (NAR) squadrons based there.[1] Commander Naval Air Reserve Force (COMNAVAIRESFOR) has requested this study be conducted to provide insights on DBOF cost allocation at NAWC Pt. Mugu. Escalating costs, particularly in the squadron's maintenance area, has raised concerns as to what is driving up the cost. The present cost allocation methods will be presented and evaluated. Feasible alternative recommendations will also be made.

C. SCOPE AND LIMITATION OF STUDY

This thesis will discuss the background and building concepts involved in unit costing and revolving funds and proceed to focus on the area of industrial activities in the DBOF. The underlying goal is to show how the system was created and to examine the resulting outcome for one specific customer, NAR squadrons. Specifically, this analysis will show details of the sources of the DBOF charges and the allocation basis used to compute the NAR's fair share as a tenant.

D. BACKGROUND

The NAR is an Echelon III command which currently operates 15 Echelon IV air commands. This force structure consists of

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[1]Although people still refer to Industrial Funds and Stock Funds from force of habit, there is technically only DBOF with business divisions.

six wholly owned reserve Naval Air Stations (NAS's), two Naval Air Facilities (NAF's) and seven NAR commands located at active duty NAS's, including NAR Pt. Mugu located at NAWC Pt. Mugu. See Table 1.

Table 1. COMNAVAIRESFOR SQUADRONS BY SITE

NAR ALAMEDA		NAS ATLANTA		NAR JACKSONVILLE	
VA-304	A6/KA6	VA-205	A6/KA6	VR-58	C9B
VR-55	C9B	VR-46	DC9	VFA-203	P3B
VP-91	P3C	NAS	UC12B	VP-62	P3C
HS-85	SH3H	MAG-42	AH1W	HS-75	SH3H
MAG-46A	RH53-D	MAG-42	OV10A/D	MAG-42A	F/A18
NAS DALLAS		**NAS NEW ORLEANS**		**NAS GLENVIEW**	
NAS	A4M	CFLSW DET	CT39G	VR-51	C9B
VR-59	C9B	VR-54	C130T	VP-60	P3B
VF-201	F14A	VP-94	P3B	VP-90	P3B
VF-202	F14A	NAS	UC12B	NAS	UC12B
NAS	UC12B	MAG-42C	CT39G	MAG-41B	KC130T
MAG-41	CH53D	MAG-42C	UHIN	MAG-41B	UH1N
MAF-41	F/A18	MAG-42C	UC12B		
NAF DETROIT		**NAR MEMPHIS**		**NAR PT MUGU***	
VR-62	DC9	VR-60	DC9	VFA-305	F/A18
VP-93	P3B	VP-67	P3B	HCS-5	HH60H
NAF	UC12B	MAG-41A	A4/TA4	VP-65	P3C
NAR NORFOLK		**NAS WILLOW GROVE**		**NAS SO. WEYMOUTH**	
VFC-12	A4/TA4	VR-52	DC9	VP-92	P3C
VR-56	C9B	VP-64	P3B	HSL-74	SH2F
VAW-76	E2C	VP-66	P3B	NAS	UC12B
HCS-4	HH60H	HSL-94	SH2G	MAG-49C	UH1H
HM-18	RH53D	MAG-49	A4/TA5		
MAG-42B	CH46E	MAG-49B	KC130T		
NAR SAN DIEGO		**NAF WASHINGTON**		**NAR WHIDBEY ISLAND**	
VFC-13	A4/TA4	CFLSW DET	C20	VR-61	DC9
VR-57	C9B	CFLSW DET	CT39G	VAQ-309	EA6B
VAW-85	E2C	VR-48	C130T	VP-69	P3C
VF-301	F14A	VAQ-209	EA6B		
VF-302	F14A	VP-68	P3C		
HSL-84	SH2G	NAF	UC12B		
MAG-46C	AH1H	MAG-49A	CT39G		
MAG-46	CH46E	MAG-49A	F/A18		
VMFT-401	F5E	MAG-49A	UC12B		
MAG-46	F/A18				

NAWC Pt. Mugu is a former NIF funded activity transferred to the DBOF effective Oct. 1, 1992. With the conversion to

the DBOF, the NAR Command and the three Naval Reserve tenant squadrons located at NAWC Pt. Mugu (VP-65, HCS-5, and VA-305) should incur DBOF overhead and administrative costs that were not previously charged at NAWC Pt. Mugu and are not charged to reserve units at other AIRPAC, AIRLANT or CNATRA bases.

COMNAVAIRESFOR also states this additional funding requirement is not supported in the Naval Reserve flight hour program budget and is increasing substantially year to year. The customer funding required to support the NAR at Pt. Mugu has increased from $316k in FY-90 to $628k in FY-93. Since there are insufficient funds built into the reserve budget to support the DBOF bill, the money comes 'out of the hide' of other flight programs. This is the starting point from which this thesis will proceed.

E. RESEARCH QUESTIONS

The primary research question is:

1. How are DBOF charges allocated to the NAR squadrons at NAWC Pt. Mugu?

Secondary research questions include:

1. Do any problem areas exist within the DBOF now?
2. What are possible alternate allocation bases for the DBOF?
3. How should tenant commands at DBOF activities be funded?

F. METHODOLOGY

Most research was conducted through personal interviews during on-site visits or by telephone. Interviews were conducted with personnel from the following organizations: NAVCOMPT, COMNAVAIRESFOR, NAWC Pt. Mugu Comptroller office, NAR Pt. Mugu Comptroller office, and NAR San Diego Comptroller office.

Research data was obtained from personal interviews, professional materials, articles, and previous theses.

II. THE PRESENT SYSTEM

A. PLANNING, PROGRAMMING AND BUDGETING SYSTEM

The NAR at Pt. Mugu receives funding for its operations through the annual appropriations for Operations and Maintenance, Navy Reserve appropriation. This funding is a result of a complicated budgeting system known as the Planning, Programming and Budgeting System (PPBS).

"The Planning, Programming, and Budgeting System can be summarized in a few words. Based on the anticipated Threat, a Strategy is developed. Requirements of the strategy are then estimated and Programs are developed to package and execute the strategy. Finally the costs of approved programs are Budgeted." (Practical Comptrollership, 1993, p.C-11)

The intent of this discussion is not to go into the details of the PPBS. The desired outcome is to establish how COMNAVRESFOR funding levels are developed and to identify changes that might improve the process.

The PPBS has three distinct phases; Planning, Programming, and Budgeting.[2] The following is a summary of these phases:

- Planning
  -Identify and assess the threat to the United States
  -Develop strategy necessary to meet national objectives

[2]Summarized from the article by Lt Col Mel Stinnet, "The A-B-Cs of PPBS," The Greener Side of Air Force Blue, vol 5, Air Command and Staff College, 1986. Updated by Captain T. H. Hovik.

-Determine forces required for the strategy
-Outcome, National Military Strategy Document (NMSD)
-Outcome, Defense Planning Guidance (DPG)

- Programming
  -Translates DPG into a financial plan of effective and achievable programs
  -Balance fiscal and resource constraints
  -Outcome, Program Objectives Memorandum (POM)
  -Outcome, Future Years Defense Program (FYDP)
  -Outcome, Resource Allocation Display (RAD)

- Budgeting
  -Planning and Programming translated into annual funding requirements
  -Emphasis on first 2 years of POM
  -Executability and pricing of programs
  -Outcome, Program Budget Decisions (PBD)
  -Outcome, Defense Management Review Decisions(DMRD)
  -Outcome, Service budgets/DoD budget
  -Outcome, President's budget

With the submission of the President's budget to Congress the next cycle called Budget Enactment begins. The objective of Budget Enactment is to authorize programs and appropriate funds.

B. APPROPRIATION

Government operations are funded by the Congress by means of annual legislation known as Appropriation Acts. Each Appropriation Act is normally preceded by an Authorization Act. It is the Authorization Act that identifies and authorizes the purposes of funds within each appropriation account.

The DoD Appropriation is one of the 13 government appropriations. The appropriation accounts that are important to this research and referenced in later chapters are:

- Operation and Maintenance, Navy Reserve (O&M,NR)
- Research, Development, Test and Evaluation, Navy (RDT&E,N)
- Military Personnel, Navy (MPN)
- Reserve Personnel, Navy (RPN)

The appropriation that covers funding for the NAR Squadrons at NAWC Pt Mugu is the Operation and Maintenance, Navy Reserve (O&M,NR). Figure 1 shows the appropriation funding chain to the NAR at Pt. Mugu.

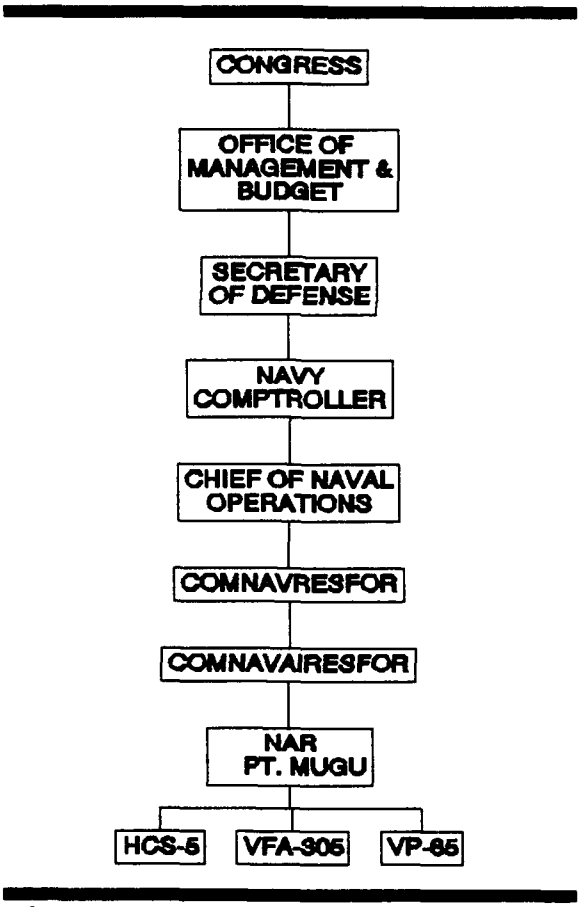

Figure 1

C. OPERATION AND MAINTENANCE, NAVY RESERVE

1. Appropriation Description

> O&M,NR is an annual appropriation, established by the Congress in 1973, available for incurring obligations for expense items during the fiscal year specified in the appropriation act. This appropriation provides for operating the Naval Reserve forces and maintaining their equipment at a state of readiness which will permit rapid deployment in the event of a full or partial mobilization. (COMNAVRESFOR P7100.1A, 1988, p.IV-1-1)

O&M,NR provides the day-to-day operations and maintenance funds for such varied costs as flight operations, ship and aircraft depot level maintenance, and base operations support costs. In execution funds are distributed to numerous major claimants, with the largest percentage allocated to COMNAVRESFOR. It is important to note that the O&M,NR appropriation includes maintenance and base operations support activities. That point will be referred to many times in later discussions.

2. Budget Activities

The O&M,NR appropriation is sub-divided into three Budget Activities (BAs):

1. BA-1 Mission Forces
2. BA-2 Depot Maintenance
3. BA-3 Other Support

COMNAVRESFOR has funding responsibilities in BA-1 and BA-3 for both air and surface force requirements for the

activities under its cognizance. BA-2 is executed in total by other major claimants. Funding for air forces is passed by COMNAVRESFOR to COMNAVAIRESFOR to administer.

> BA-1 for air forces supports flight training, aircraft operations and aircraft maintenance. Funds provide for fuel, oil, lubricants, consumable and depot level repair parts, replacement of flight clothing and emergency equipment, active duty military mission travel, miscellaneous supplies for squadron operation, and operations of simulators and instrumented ranges used for crew training. These costs are budgeted as Activity Group 5A.
>
> BA-3 supports other base operations for both air and surface commands. This includes the following types of cost: administration of all command departments, maintenance and repair of real property, utilities, communications, galley and bachelor quarters operations, automatic data processing, travel, minor and plant property equipment, civilian labor, transportation equipment operation and maintenance, airfield operations, recruiting, advertising, and management headquarters. These costs are budgeted as the following Activity Groups: F3 Other Base Operations Support[3]; F4, Real Property Maintenance; 5T, Management Headquarters; 5Y, Recruiting; 5Z, Advertising. (COMNAVRESFOR P7100.1A, 1988, P.IV-1-2)

D. ANNUAL PLANNING FIGURE

An Annual Planning Figure (APF) represents the total funding a command may plan to receive for the fiscal year within its operating budget. An Operating Budget (OB) for COMNAVRESFOR commands is composed of funding for BA-1 and BA-3 operations. Separate APF's are issued for each BA within the

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[3]Activity Group F3, Other Base Operations Support, includes support to the Aircraft Intermediate Maintenance Department. This is referred to later in Chapter 5.

OB. APF's may be issued by COMNAVRESFOR either before or after the beginning of the fiscal year, depending on many variables such as the nature of the BA and the status of the appropriation act.

OB holders are responsible to ensure that a viable financial plan, not dependent on additional funding from COMNAVRESFOR, is maintained within their assigned APFs. This is where the NAR at Pt. Mugu has been running into problems because of escalating labor costs.

E. BA-1 FLIGHT PROGRAM EXECUTION

BA-1 flight funds are used in support of the NAR flight hour program. Prior to the beginning of each fiscal year and quarterly thereafter, a flight hour program message is sent by COMNAVRESFOR to all OB holders. These messages provide planned hours as well as cost per hour data for each squadron. Non-flight planning figures are also provided. Category cost data established by the Annual Flight Program Cost Data letters are only guides as to how flight hour cost should be apportioned. Movement of funds within these categories is encouraged to ensure maximum use of each flight hour dollar. Commanding Officers have the latitude to reprogram flight hour dollars from one unit to another provided the reprogramming does not curtail a unit's ability to achieve its annual flight hour program.

F. AVIATION MAINTENANCE DEPARTMENT

Work performed at Aviation Maintenance Department at Pt. Mugu is where the DBOF labor charges in question originate. AMD repairs broken or damaged equipment owned by the NAR Squadrons. The AMD is divided into work centers such as airframes, avionics, etc. The work center will be broken down into more detail later when labor cost is evaluated. As a precursor to proceeding to an analysis of labor cost, the next chapters will provide background information on unit costing and the DBOF.

III. THE UNIT COST CONCEPT

A. PRINCIPLES

Unit cost is a foundation upon which the revolving fund concept can operate. The principle objective of unit costing is to give managers the ability to determine and evaluate all the business costs of producing an output.

First, an output must be identified to be able to assign costs. The unit cost system emphasizes using an objective measurement of the output by relating it directly to the primary mission of the activity. Although this system emphasizes a measurable output, it also recognizes that some outputs cannot be easily measured and must be treated as a level of effort.

The cost of every product or service output consists of direct, indirect, and general and administrative overhead costs. Direct costs are those that are clearly associated with a product or output such as parts or labor hours. Indirect costs, such as shop supervisors, benefit two or more but not all of the products. General and administrative expenses are overhead costs that cannot readily be associated to any particular output and are allocated to all outputs or products (e.g., base security and fire protection).

All costs required to make a product or give a service are totaled and then divided by workload units produced to determine actual unit cost or cost per output. With this approach, all direct cost of production and costs associated with the infrastructure that supports an activity are accounted for in the unit cost. The objective is to highlight the cost drivers, or those activities that result in costs being incurred. Cost drivers are then evaluated to determine whether they add value to an output or result in improved customer support. Activities should strive to eliminate or minimize those cost drivers that do not accomplish these objectives.

Customer demand is the factor that determines output quantity. The DoD Comptroller sets the unit cost targets at the service level based on recommendations of the Military Departments. The manager's primary function is to ensure that the DBOF activity provides goods and services at or below the stipulated unit cost. This ties funding levels directly to outputs. Instead of a guaranteed budget level, obligations are limited to a predetermined unit cost target times a defined output.

Unit costing is based on the relationship of resources consumed to output produced. The system seeks to have each product or output bear the cost as accurately as possible. Savings can only happen if processes are changed or eliminated

and the effects of these changes results in a lower actual cost per output.

Unit costing can apply to any support activity within DoD regardless of the means of funding (direct appropriations, reimbursements, or revolving funds).[4] Some Navy support activities come under unit costing without the transfer pricing arrangements afforded by the DBOF. The DoD continues to identify activities to be included in the DBOF with a unit cost pricing base for customer activity.

B. ADVANTAGES

- Producers using unit cost can benefit by minimizing their costs after evaluating and adjusting cost drivers, thereby improving efficiency in operations.
- Consumers, who will pay higher prices for fully priced goods, will economize by buying only essentials or will seek alternate sources offering services at a lower price.
- Budget evaluation, support and planning will become simpler and more consistent. Similar performance measures will apply to diverse organizations.[5]
- Personnel performance evaluations will be more meaningful because of standardized cost methods and comparability among similar organizations of the different services.
- Decision makers in consuming and producing activities will know the full cost of resources they consume and can make intelligent decisions that integrate cost as an important consideration. Managers can more easily assess the

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[4]Hough, G.H., "Are all costs variable?," Armed Forces Comptroller, Winter 1993, p. 15.

[5]Seidon, N.E., The DOD Unit Cost Initiative: A Navy Overview, Economic Analysis, And Review Of Base Operations Support Cost Allocation, M.S. Thesis, Naval Postgraduate School, Monterey, CA, December 1991, p. 30.

impacts of important decisions and unit cost information will provide additional data on which to base decisions such as base closures and realignments.

C. DISADVANTAGES

- Unit cost pricing may make costs higher than commercial alternatives. This can happen because commercial activities operate on a contribution margin, not on full unit cost basis. As long as commercial activities receive more money than their variable costs they will usually produce a product or service.

- Unit cost resourcing also requires a complex accounting system to be in place in order to work. The possibilities for inaccurate, incomplete, or outdated information used to determine unit cost is a great concern. Proper customer reimbursement to the working capital fund, as well as billing, rely on a good accounting system. Accounting standardization in the system is a must.

- Unit costing fails to distinguish between fixed and variable costs.[6] The system tends to imply all the costs are variable. For organizations with a high percentage of fixed costs significant changes in volume rather than managerial decisions will have the greatest impact on unit costs. Efforts are underway to try and resolve this problem.

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[6]Hough, G.H., "Are All Costs Variable?," Armed Forces Comptroller, Winter 1993, p. 16.

IV. THE DEFENSE BUSINESS OPERATIONS FUND

A. HISTORY

Revolving fund authority is provided by the National Security Act of 1947, as amended (Title 10 U.S.C. section 2208) which allows the Secretary of Defense to establish revolving funds. (Financial Management Manual, 1993, p. 9-1)

Stock and industrial funds originally made up the first DoD revolving funds. Stock funds were used to finance the purchasing of large inventories of consumables and parts for DoD Stock points. These supplies are later repurchased by the DoD customer and the stock fund is reimbursed with customer funds. Industrial funds provide capital to activities for the production of commercial goods and services. DoD customer's purchase the products or services and reimburse the industrial fund. Different types of services are provided by industrial funded activities. Research and Development is one of these services and is the primary business activity of NAWC Pt. Mugu.

Overhead costs have always been included in the pricing of industrial activity works while supply activity overhead was not originally charged to the customer. This policy changed on October 1, 1991 when the DBOF was created. This change was made in recognition of the fact that the selling prices to

customers of the revolving funds should include all the costs of providing material or industrial goods and services.

The DBOF originally combined 5 industrial funds and 4 stock funds into a single revolving fund. The desired benefits of using revolving funds are listed below as summarized in the DoD publication, DBOF FY 1994 Budget Estimates Executive Overview. They are:

- Improved cost awareness.
- Businesslike management.
- Better coordination of operating and fiscal responsibilities
- Buyer-Seller relationships.
- Easier comparison of similar Service activities.
- Protection of customers from price increases during execution
- Closer relationships of missions and budgets.

Improved cost awareness by the producer as well as the customer using revolving funds has its benefits to both parties. By providing the manager total cost information and the authority and flexibility to make tradeoff decisions, quality products and services at lowest cost should result. For the customer, reduced production costs translate to reduced prices. This enables the customer to more effectively accomplish assigned missions within available resources.

B. CONCEPT

The DBOF combines individual revolving funds into a single revolving working capital fund. This initial capital funding was started by Congress with a funding corpus. When a customer needs a service performed he submits a customer order to the activity to perform the service. The activity finances the cost of the material, personnel, and any other costs to start the work. The customer is billed when the work is completed or as it is being completed. The customer then pays his bill by reimbursing the working capital fund. Prices for goods and services produced in a Component business area remain the responsibility of that Component and are set on a break-even basis over the long term. (DBOF Implementation Plan, 1993, p. 5) Billings are based on stabilized rates. Stabilized rates are established for the fiscal year based on unit cost and the solvency of the activities revolving funds. This can result in a directed profit or loss to drive the activities Accumulated Operating Result towards a balanced position. Profits, when they occur, are returned to customers through lower rates in subsequent years, while losses are recouped through increased rates in subsequent years.

Annual budget documents for each business in the Fund provide clear guidance as to what the Department's expectation of performance should be. Full operational costs to run the business are easier to determine, providing valuable information for management's use in becoming more efficient.

DBOF financial procedures provide increased management flexibility to act on areas needing improvement.

Each business area receives both an operating and a capital budget. Major efforts have been taken in each business area to improve the delineation between capital investments and operating costs. The assets of the industrial and stock funds have been transferred to the DBOF. Accountability of these assets is in accordance with current DoD regulations. All capital assets used by Fund activities will be depreciated or amortized in accordance with generally accepted accounting standards. (Financial Management Manual, 1993, p. 9-2) These actions help provide more meaningful identification of operation and capital costs and identifies total cost of the business area.

Overall resource utilization is ultimately determined by the level of customers orders. The business manager is expected to keep costs within the sum of approved cost goals times the customer determined work load. This management concept provides the manager the opportunity to make trade-off decisions for the best operating results within the business.

C. COST GOALS

Industrial activities cost goals are now provided through a funding document. All funding authority prior to FY 1992 was provided through customer orders. (Financial Management Manual, 1993, p. 9-1) Official management cost goals are

issued to the Services and Agencies through Annual Operating Budgets (AOBs). The type of goal depends on the nature of the business.

> Some unit cost goals are established at the Departmental level; some activities have so many outputs that the goals are expressed in terms of the change in cost from the prior year; other activities have goals expressed in terms of cost per billable hour. (DBOF FY 1994 Budget Estimates Corporate Overview Operation Budgets, 1993, p.3)

This area will be covered in more detail later in the analysis of NAWC Pt. Mugu's AOB. The result of issuing the AOB establishes a cost goal that management needs to strive to attain.

D. MEASURES OF COST

One of DBOF's primary goals is to breakout cost drivers so managers are better aware of what really makes up a product or service cost. For managers to be able to reduce cost, there must be established credible standard measures of cost. For a number of activities, cost per output measures have been established which cover a large portion of the work of those activities. For others, the establishment of high level goals and fixed prices makes it possible to measure changes in cost on the basis of financial operating results. Some examples of unit cost measures that have been established are:

- Finance and Accounting service
  - Civilians paid
  - Military paid

- Retirees paid
- Contract invoices paid

- Distribution Depots
  - Line items shipped

- Supply Management
  - Sales

- Depot Maintenance
  - Operating results based on cost goals/fixed prices

- Commissaries
  - Sales

- Military Airlift Command
  - Air crews trained

- Research and Development Labs
  - Billable hour[7]

E. POLICIES

A major change in policy under DBOF is the full recovery of losses or return of gains to the customer on an annual basis. Previous stock and industrial fund operations were expected to break even over the long term. Now, all business in the Fund are required to set their prices based upon full cost recovery the next year. (DBOF FY 1994 Budget Estimates Corporate Overview Operating Budgets, 1993, p. 16)

F. THE NAVY AND THE DEFENSE BUSINESS OPERATIONS FUND

The Department of the Navy is the largest of the Military Department segments of the DBOF. NAWC Pt. Mugu falls in the business area division of Research and Development.

[7]DBOF Implementation Plan, 1993, pgs. 31-32.

Presently, there are a total of 11 different business areas covering eighty major activities. These include:

- Supply Operations
  - 3 Inventory control points
  - 3 Supply depots
  - 7 Logistic support activities
- Depot Maintenance
  - 8 Shipyards
  - 6 Aviation depots
  - 5 Weapons stations
  - 2 Marine Corps depots
- Research and Development
  - 19 laboratories
- Transportation
  - Special mission ships
  - Navy Fleet Auxiliary Force
  - All common user transportation functions
- Base Support
  - 11 Public works centers
  - Naval Academy Laundry Services
- Information Services
  - 10 Computer and telecommunications stations
  - 8 Consolidated data processing installations
- Defense Printing Service
  - Consolidated organization for printing and duplication[8]

G. RESEARCH AND DEVELOPMENT

On April 12, 1991, the Secretary of the Navy approved a plan to consolidate Navy research, development, test and evaluation, engineering, and fleet support activities effective January 1, 1992 in accordance with Defense Management Report Decision (DMRD) 922. (DBOF FY 1994 Budget

[8]DOD Implementation Plan, 1993, pgs. 7-9.

Estimates Corporate Overview Operating Budgets, 1993, p. 91)

The objectives of the consolidation and realignment were to:

- Preserve the Navy's Research and Development capability with fewer resources
- Purify mission responsibilities
- Establish research and development leadership areas

The consolidation established four Warfare Research Centers. They consist of Naval Air Warfare Centers, Naval Surface Warfare Centers, Naval Undersea Warfare Centers, and Naval Command, Control and Ocean Surveillance Centers. Point Mugu falls under the Naval Air Warfare Centers (NAWC). The NAWC is divided into two types of divisions, Aircraft and Weapons. Point Mugu is part of the Weapons Division.

1. Naval Air Warfare Center, Weapons Division, Point Mugu

Naval Air Warfare Center (NAWC) provides full spectrum research, development, test and evaluation, engineering, and fleet support for air platforms, autonomous air vehicles, missiles and missile subsystems, weapon systems associated with air warfare, avionics systems, and for sensor systems used to conduct anti-submarine warfare from air platforms. (DBOF FY 1994 Budget Estimate, 1993, p. 190)

The NAR squadrons located at NAWC Weapons Division (NAWCWPNs), Pt. Mugu are considered tenants. The mission of the base is quite different than the mission of the NAR. The NAR mission is to train Reservists to an operational readiness

level to fully man and support an operational squadron capable of augmenting the Navy when the need arises.

Since NAWCWPNs, Pt. Mugu is a host, the NAR relies on the usage of its facilities. The Aircraft Maintenance Department is one of the most important facilities the NAR uses. An analysis of the cost the NAR incurs at AMD will be the focus of discussion in the next chapter.

V. COST ANALYSIS OF THE NAVAL AIR RESERVE, POINT MUGU

A. DBOF CHARGES FOR REPAIRS

The major goal of this thesis is to analyze the DBOF charges NAR squadrons receive from the Aircraft Maintenance Department (AMD) at NAWCWPNs, Pt. Mugu. These costs are for completed repair work done on the squadrons' aircraft and Ground Support Equipment (GSE). As stated earlier, maintenance costs for NAR squadrons have been rising steadily since 1990, growing 24% between FY-91 and FY-92, and 64% between FY-92 and FY-93. See Figure 2. FY target cost, the amount budgeted for maintenance is compared with FY final obligation, the ultimate cost. The FY balance, or delta, represents the funding the NAR Comptroller had to take from other sources to cover the increased maintenance cost. These escalating costs raise a variety of questions. What are the cost drivers for the rising costs? What is the allocation method used for G&A costs and is it fair? Will the costs continue to grow at a rapid rate? All are questions to which COMNAVAIRESFOR wants answers.

COMNAVAIRESFOR believes a major factor for the escalating costs originated with NAWCWPNs, Pt. Mugu transferring to the DBOF. As described in Chapter IV, a DBOF activity (such as the AMD) is reimbursed for their costs by the customer. The

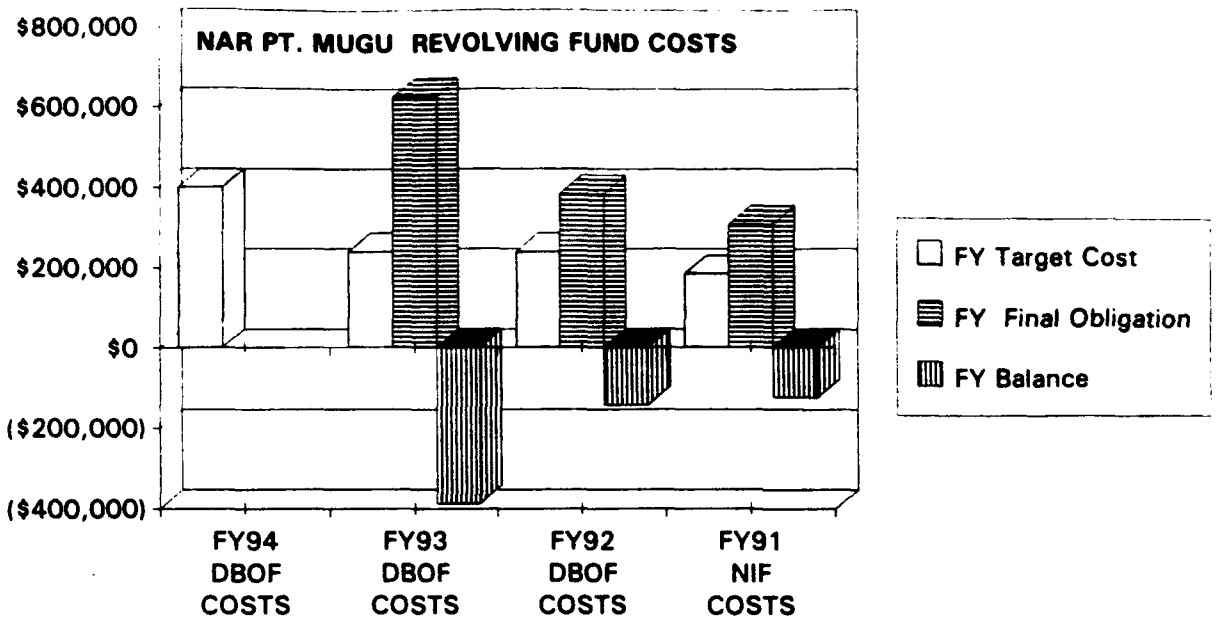

Figure 2

DBOF activities charge not only for their direct costs, but also for a share of their production and G&A overhead costs.

Prior to the DBOF, the NAR squadrons were charged only for Navy Industrial Fund (NIF) labor and parts for work performed at AMD. When NAWCWPNs, Pt. Mugu transferred to the DBOF on October 1, 1991, COMNAVAIRESFOR assumed part of the corresponding rise in costs (24% between FY-91 and FY-92) was tied to the indirect costs being added to the former NIF labor bill. The new G&A costs, however, did not provide a complete answer; it seemed likely that other factors were also contributing to the 24% increase.

B. FUNDING CONFLICTS

The NAR squadrons located at Pt. Mugu are not funded for such large DBOF charges because they and other NARs are not funded for work to be accomplished by DBOF activities. NAR squadrons fall under the appropriation system described in chapter II. Normally, COMNAVRESFOR transfers funding from the O&M,NR appropriation to Naval Air Bases supporting Reserve units. Funding is from BA-3 (Base Operations Support) and is used for maintenance support of the NAR squadrons. As an example, the NAR squadrons at NAS North Island, San Diego, have their repair work performed at the Aircraft Intermediate Maintenance Department (AIMD). These squadrons are <u>not</u> charged for the maintenance work performed. NAS North Island receives funds from O&M,NR, BA-3, part of which covers the AIMD support of the NAR squadrons. However, since the AMD at NAWCWPNs, Pt. Mugu is a DBOF activity operating on customer reimbursements for service, funding is passed through the squadrons as the customer of the AMD.

This funding process only occurs for the NAR squadrons located at NAWCWPNs, Pt. Mugu, where DBOF charges are depleting the squadrons' resources. The NAR's Comptroller controls funding under Activity Group 5a (Air Forces). The SAGs under Activity Groups 5a are listed below:

- BG Aircraft Fuel, Oil, and Lubricants
- BU Other Aircraft OPS (other flight operations, maintenance, parts, AVDLR's, etc.)

- CC Air TAD (travel)
- CE Other Flight Support (ranges, targets, non-flight costs, miscellaneous, cold weather gear, **NIF/DBOF**, etc.)
- CM Aircraft Simulators
- EK Air Staffs
- HZ Intelligence

The NAR's DBOF costs are first paid from SAG CE, Other Flight Support. Because of the steep increases in the DBOF costs over the past few years, SAG CE funds have been consistently exhausted early in the fiscal year, causing the Comptroller to transfer funds from other SAGs in order to handle these unexpected big increases. The transferring of funds however, provides only a temporary solution and in the long run is detrimental to the flight program (the NAR's mission is to adequately support the flight program). Transferring funds, for instance, from the two largest SAGs, BG and BU, whose funds are earmarked for the squadrons' required flight hours, would seriously endanger readiness. To avoid this, the NAR Comptroller has had to, and continues to, ask COMNAVAIRESFOR for relief.

C. JOB COST ACCOUNTING SYSTEM

The AMD at Pt. Mugu performs repair work on NAR's aircraft and ground support equipment (GSE). A breakdown of the AMD by work centers is pictured in Figure 3.

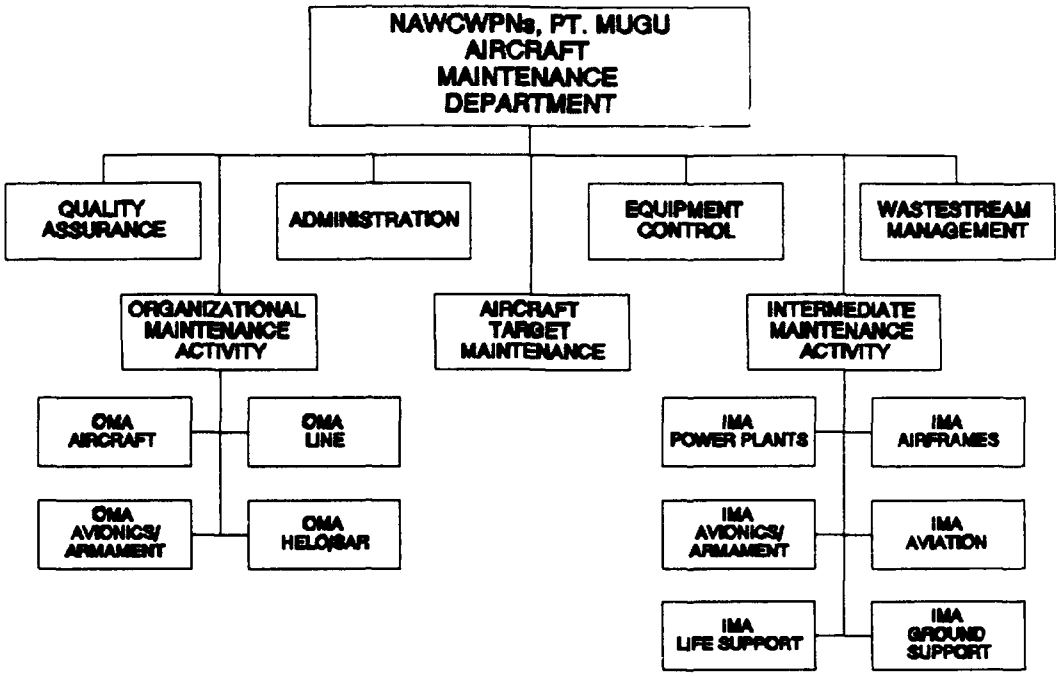

Figure 3

To start the process, one of Pt. Mugu's squadrons submits a work request to the AMD. Once the proper work center receives the request it sets up a cost record account called a job order. The job order is a document on which the work center records all charges necessary to complete the job.

All costs that accumulate on the job order consist of direct and indirect costs. A direct cost includes direct labor hours, materials used, and all other costs which are directly related to the job. The AMD divides labor into the following four general categories:

- Maintenance Support (aircraft)

- GSE NAWCWPNs ASSET
- GSE TENANT ASSET
- GSE MISUSE/ABUSE

Labor hours from the four categories were totaled for purposes of this thesis. Indirect costs consist of both production (shop supervisors) and general and administrative (G&A) costs from the various work centers. These were also totaled from the job orders.

The AMD's job orders are billed by multiplying the total time of direct labor hours required for the job by a "stabilized rate". The stabilized rate consists of:

- Labor;
- Production; and
- General and Administrative rates.

For example, the total cost for a job that takes 2 hours direct labor to complete = 2 x (stabilized labor rate) + 2 x (stabilized production rate) + 2 x (stabilized G&A rate). How the stabilized rates for labor, production and G&A are determined is discussed next.

D. STABILIZATION RATES

First, two terms, "work year" and "productive hours", commonly used in labor discussions, must be defined. A work year consists of 1750 productive work hours. A work year is

computed from a worker's salary based over an average year containing 2080 total paid hours, including holidays. The amount of time per year a worker is due for annual leave, sick leave, and holidays average about 330 hours per year. The difference between these hours results in 1750 hours, which is termed "productive hours". Productive hours can be considered the total amount of hours actually worked in a year. Each year the AMD and all the other cost centers at NAWCWPNs, Pt. Mugu, submit a budget which has their projected stabilized rates which would enable them to cover their costs. Since the stabilized rates are charged to the customer based on the number of direct labor hours to complete a job, an hourly figure is determined. Figures from the AMD FY-93 budget will be used to show how the stabilization rates are calculated.

The cost center starts the process by estimating the amount of time and work load for the budgeted year. The AMD estimated that they would complete 109.7 work years of direct labor, a 9.8% increase over FY-92. This figure is estimated from historical data and future expected projects. To translate AMD's work years into total productive labor hours for FY-93, multiply 109.7 (work years) x 1750 (productive hours) = 191,975 hours. The AMD also estimates how much the productive labor hours are going to cost. This figure takes into account the range of workers' salaries in the different work centers. For FY-93 they estimated the cost to be

$4,558,600. To determine the stabilized rate for FY-93, the AMD divided the estimated cost by the estimated total hours:

$$\frac{\$4,558,600}{191,975} = \$23.75 \text{ (direct labor rate)}$$

Basically, the AMD uses the same process to determine the stabilized production rate and stabilized G&A rate. The sum of these rates is the total stabilization rate that should have been charged for any work AMD performed in FY-93.

All of the cost centers at NAWCWPNs, Pt. Mugu, perform the same computations discussed above. These figures are then totaled and averaged by the comptroller for the whole WPNs Division. Table 2 shows the stabilization estimates of the NAWCWPNs, Pt. Mugu comptroller for FY-93.

Table 2

NAWC POINT MUGU RATE STABILIZATION BUDGET ESTIMATES FOR FY-93 ($000)							
		ADDED/	TOTAL	DIRECT	ADDED/		CALC
	TOTAL	EXCLUD	RATED	LABOR	EXCLUD	NET	AVER
	COSTS	COSTS	COSTS	HOURS	HOURS	HOURS	RATE
DIRECT	127,831	(17,460)	110,371	3,921,328	(727,002)	3,194,326	$34.55
PROD	1,358	34,785	36,143	3,921,328	(1,319,106)	2,602,222	$13.89
G&A	95,068	(28,923)	66,145	3,921,328	(1,319,106)	2,602,222	$25.42

These rates are then submitted in the annual budget which are reviewed and revised by NAVAIR, NAVCOMPT, and OSD before being submitted in the President's budget. These rates can be adjusted anywhere along the process. The Pt. Mugu FY-93 budget submission was started in May 1991 with submission to NAVAIR in support of FY-93 which started on October 1, 1992.

The stabilized rates that resulted from the above process for FY-93 are shown in Table 3. Note that the NAWCWPNs, Pt. Mugu Comptroller has broken down the total average stabilized rates by work center. The AMD direct labor rate shown is $27.13 as compared to $23.75 computed above. Differences will occur from adjustments made in the budget submission process. One factor which made a large adjustment in FY-93 was the attempted partial recovery of Accumulating Operating Results (AORs) losses. AORs are discussed later in this chapter. Looking at Table 3, the column containing the labor rate discussed above is labeled accelerated direct labor rate. This is different than a pure direct labor rate. What accelerated direct labor rate means is discussed in the following section.

E. LABOR ACCELERATION

All activities at Pt. Mugu charge an accelerated direct labor rate. Acceleration is a percentage added to civilian and military labor costs to compensate for leave and the government's share of the cost of fringe benefits. The total cost of a laborer's salary is based on this acceleration rate.

As stated earlier, a worker's total productive hours are considerably less than his yearly total paid hours (1750 hours versus 2080 hours). The DBOF needs to recover all costs of a worker's salary, including the cost of fringe benefits. If the AMD charged rates based on a worker's total paid hourly

Table 3

NAVAL AIR WARFARE WEAPONS DIVISION, POINT MUGU SITE FY-1993 STABILIZED RATES FOR DOD CUSTOMERS					
TYPE CC	ORGANIZATION TITLE	ACCL DIRECT LABOR RATE	PROD RATE	G&A RATE	TOTAL RATE/HR
GEN 00	COMMAND/STAFF OFFICE	$46.39	$0.00	$27.00	$73.39
GEN 03	DEPUTY COMMANDER FOR T&E	$42.15	$0.00	$27.00	$69.15
E/E 04	SPECIAL PROJECTS	$34.74	$2.77	$27.00	$64.51
GEN 06	SERVICE AND INFO DIRECTORATE	$37.26	$0.00	$27.00	$64.26
GEN 07	NAWS CO & STAFF	$17.66	$0.00	$27.00	$44.66
GEN 0A	COMMAND STAFF ELEMENTS	$46.39	$0.00	$27.00	$73.39
R/T 0B	NAWCWPNS MRTFB MANGMT OFFICE	$32.88	$0.00	$0.00	$32.88
GEN 0C	SOP/IG OFFICE	$46.39	$0.00	$27.00	$73.39
E/E 11	AIRCRAFT SYSTEMS DEPARTMENT	$42.70	$7.44	$27.00	$77.14
E/E 15	RELIABILITY & INSTRUMENTATION DEPT	$34.33	$18.28	$27.00	$79.61
E/E 18	STRIKE SYSTEMS DEPARTMENT	$32.68	$16.14	$27.00	$75.82
E/E 19	AIR INTERCEPT SYSTEMS DEPT	$40.32	$11.49	$27.00	$78.81
E/E 20	IN-SERVICE ENGINEERING DEPARTMENT	$34.04	$15.52	$27.00	$76.56
E/E 23	FIELD TECHNICAL REPS	$31.72	$6.97	$2.92	$41.61
R/T 34	SEA RANGE CUSTOMER OFFICE	$45.49	$0.00	$0.00	$45.49
R/T 35	RANGE OPERATIONS DEPARTMENT	$38.77	$0.00	$0.00	$38.77
R/T 36	RANGE INSTRUMENTATION DEPT	$36.16	$0.00	$0.00	$36.16
R/T 37	RANGE ENGINEERING DEPARTMENT	$39.95	$0.00	$0.00	$39.95
R/T 3B	SEA RANGE DIRECTORATE	$45.94	$0.00	$0.00	$45.94
E/E 3M	MOBILE SEA RANGE DIVISION	$33.24	$8.30	$27.00	$68.54
R/T 3S	RANGE SAFETY	$44.21	$0.00	$0.00	$44.21
E/E 40	ELECTRONIC WARFARE DEPARTMENT	$34.97	$17.37	$27.00	$79.34
E/E 52	VULNERABILITY ASSESSMENT DIVISION	$35.05	$12.91	$27.00	$74.96
E/E 53	TELEMETRY DIVISION	$34.19	$18.28	$27.00	$79.47
R/T 5A	TARGETS	$35.37	$0.00	$0.00	$35.37
E/E 5B	TARGETS PROGRAM DIVISION	$35.20	$15.19	$27.00	$77.39
E/E 5C	FIELD SERVICE SECTION	$33.32	$7.77	$2.92	$44.01
GEN 61	COMPTROLLER DEPARTMENT	$20.65	$0.00	$27.00	$47.65
GEN 62	HUMAN RESOURCES DEPARTMENT	$26.11	$0.00	$27.00	$53.11
GEN 63	INFORMATION SYSTEMS DEPARTMENT	$23.34	$0.00	$27.00	$50.34
GEN 64	TECHNICAL INFORMATION DEPARTMENT	$30.29	$0.00	$27.00	$57.29
GEN 65	PROCUREMENT DEPARTMENT	$20.42	$0.00	$27.00	$47.42
GEN 70	MORALE, WELFARE & RECREATION DEPT	$19.61	$0.00	$27.00	$46.61
GEN 72	SUPPLY DEPARTMENT	$24.73	$0.00	$27.00	$51.73
GEN 73	PUBLIC WORKS DEPARTMENT	$23.68	$0.00	$27.00	$50.68
GEN 74	SECURITY DEPARTMENT	$19.76	$0.00	$27.00	$46.76
R/T 75	WEAPONS DEPARTMENT	$27.54	$0.00	$0.00	$27.54
R/T 76	AIR OPERATIONS DEPARTMENT	$32.76	$0.00	$0.00	$32.76
R/T 77	AIRCRAFT MAINTENANCE DEPARTMENT	$27.13	$0.00	$0.00	$27.13
E/E 7A	FLIGHT OPERATIONS DEPARTMENT	$20.98	$11.95	$27.00	$59.93
R/T 7E	EXPLOSIVE ORDNANCE DEVICES DEPT	$26.82	$0.00	$0.00	$26.82
E/E 7H	FAMILY HOUSING DEPARTMENT	$28.16	$0.00	$27.00	$55.16
GEN 80	MARINE AVIATION DETACHMENT	$20.32	$0.00	$27.00	$47.32
E/E 90	AIRCRAFT WEAPONS INTEGRATION DEPT	$35.86	$12.12	$27.00	$74.98

rate per year, instead of a production hourly rate per year, the actual total costs of that worker would not be recovered. This is why the acceleration rate is used. The problem is corrected by multiplying the acceleration rate by the total paid work hours, yielding a rate to fully cover the cost of that worker. The example below shows how an acceleration rate is determined for a worker with a $30,000 salary and fringe benefits costing $2,200.

Cost of a worker without fringe benefits, leave, or holidays

$$\frac{\text{\$30,000 annual salary}}{\text{2,080 hours paid per year}} = \textbf{\$14.42 cost per hr.}$$

Cost of that worker with fringe benefits, leave, and holidays

2,080 hours paid per year
- 330 hours annual, sick, and holidays
1,750 productive hours per year

$$\frac{\text{\$30,000 salary + \$2,200 fringe}}{\text{1,750 productive hours per year}} = \textbf{\$18.29 cost per production hr.}$$

Determining what total acceleration rate needs to be applied to the cost per hour is computed by using the cost per production hour, minus the cost per hour paid, and dividing the result by the cost per hour paid.

$$\frac{\text{\$18.29 - \$14.42}}{\text{\$14.42}} = 26.84\%$$

This example results in 26.84%. This rate would always be used for that year to accelerate the cost per hour rate to calculate the total costs of that worker. The acceleration

rate as shown above, includes the costs for the fringe benefits and the adjustment for leave hours.[9]

The acceleration rates used by Pt. Mugu to determine the accelerated direct labor rate since FY-89 are shown in Table 4. Obviously, acceleration is a major cost driver for direct labor rates. In FY-93 the rate was at 44%. The total cost of that labor hour is almost one and a half times the labor hour rate. Since FY-89 the acceleration rate has had an increase of 1% or more every fiscal year.

Table 4

NAWC WEAPONS DIVISION, POINT MUGU FISCAL YEAR ACCELERATION RATES					
	FY-93	FY-92	FY-91	FY-90	FY-89
ANNUAL LEAVE	10.00%	10.00%	10.00%	11.60%	9.60%
SICK LEAVE	4.00%	4.00%	4.00%	4.00%	3.80%
COMPENSATORY LEAVE	1.10%	1.10%	1.10%	0.00%	0.00%
HOLIDAY AND OTHER	5.00%	5.00%	5.40%	4.90%	4.60%
FICA TAX	3.10%	3.00%	2.50%	2.50%	1.40%
FEDERAL EMPLOYEE GROUP LIFE INSURANCE	0.30%	0.30%	0.30%	0.30%	0.30%
CIVIL SERVICE RETIREMENT FUND	5.20%	5.00%	5.60%	5.60%	7.70%
FEDERAL EMPLOYEE HEALTH BENEFITS	6.30%	6.00%	6.00%	5.60%	3.40%
MEDICARE	1.50%	1.50%	1.20%	1.20%	1.70%
THRIFT SAVINGS PLAN	0.50%	0.50%	0.30%	0.80%	0.50%
THRIFT SAVINGS PLAN MATCHING	1.10%	1.00%	0.50%	0.00%	0.00%
FEDERAL EMPLOYEES RETIREMENT SYSTEM	5.90%	5.60%	5.10%	4.20%	5.00%
YEARLY ACCELERATION RATE	44.00%	43.00%	42.00%	40.70%	38.00%

F. ANNUAL PAY RAISES

Annual pay raises are also a cost driver of the labor rate. Annual pay raise rates obtained from the Human

[9]This discussion is derived in part from the format used in NPS Practical Comptrollership, 1993, pgs. E20-E22.

Resources Department (HRD) at Pt. Mugu are listed in Table 5. A significant jump occurred in January 91 for a total pay increase of 11.6%. This is largely due to the Cost Of Living Allowance (COLA) given that year because of Pt. Mugu's high cost of living status. Pay raises, which all occur in January, are reflected in the DBOF labor rates for the fiscal year if the pay raise is requested in the President's budget. The COLA portion of the January 91 pay increase was not included in the FY-92 labor rates. This happened because it was an unexpected COLA and was not budgeted for the submission that year. The COLA was included in the FY-93 labor rates.

Table 5

NAWC PT. MUGU ANNUAL CIVILIAN PAY INCREASES					
EFFECTIVE DATE	Jan-93	Jan-92	Jan-91	Jan-90	Jan-89
YEARLY PAY RAISE	3.80%	4.10%	3.60%	3.40%	4.10%
COST OF LIVING ALLOW.	8.00%	8.00%	8.00%		

G. NET OPERATING RESULTS

Basic standardized balance sheets are used at NAWCWPNs, Pt. Mugu for budget submissions. In accordance with the DBOF guidelines, the goal is to have a zero profit or loss at the end of a fiscal year. If there is a profit or loss, the resulting balance at the end of a fiscal year is called the Net Operating Results (NORs). The NOR equates to the difference between total revenues and total expenses of an activity for a current fiscal year.

Table 6

NAVAL AIR WEAPONS CENTER, POINT MUGU				
SUMMARY STATEMENT OF REVENUE AND COSTS				
($000)				
	FY-92	FY-93	FY-94	FY-95
ASSETS	712,730	535,994	511,881	527,915
LIABILITIES	257,364	264,933	267,622	236,719
EQUITY	455,366	271,061	244,259	291,196
LIABILITIES & EQUITY	712,730	535,994	511,881	527,915
REVENUE	1,159,273	1,229,224	1,191,246	1,224,048
COST OF GOODS & SERVICES	1,181,268	1,210,717	1,204,800	1,191,325
REVENUE LESS EXPENSES	(21,995)	18,507	(13,554)	32,723
AOR CALCULATIONS				
NET OPERATING RESULTS	(21,995)	18,507	(13,554)	32,723
PRIOR YEAR ADJUSTMENTS	(14,826)	33,610	0	0
TOTAL FY CHANGE AOR	(36,821)	52,117	(13,554)	32,723
BEGINNING FY AOR	(34,465)	(71,286)	(19,169)	(32,723)
ACCUM OPERATING RESULTS	(71,286)	(19,169)	(32,723)	0

The DBOF concept discussed in chapter IV includes the requirement for full recovery of costs. Some industrial activities, including NAWCWPNs, Pt. Mugu, have had big revenue losses in previous years. These losses are carried forward on the financial records as Accumulating Operating Results (AORs). AORs consist of the running totals of the previous fiscal years' NORs.

In the old industrial fund, recovery of revenue losses were planned to be recouped over a relatively long period of time. Recently, under the DBOF, the recovery period of revenue was changed to set prices for full recovery of previous losses by the end of FY-94, later shifted again to the end of FY-95. Recovering all the prior years' losses in

one year for activities such as NAWCWPNs, Pt. Mugu would have dramatically increase their rates. If the rates go too high, a customer will have to choose between foregoing some service or getting help from a different activity, possibly at another base, to have the service performed.

Table 6 summarizes the FY-92-95 execution budget for NAWCWPNs, Pt. Mugu. These figures will be used to analyze the effects the AOR has on the stabilized rates in FY-93 for Pt. Mugu. The first column for FY-92 shows the AOR at -$71,286,000. The NAWCWPNs, Pt. Mugu Comptroller's office personnel, when questioned about a plan for recovery of that loss, noted that the entire amount, realistically, could not have been recovered in FY-93. If they would have attempted to do this the AOR recoupment rate alone would have been $18.23 per hour. The average FY-93 overall accelerated direct labor hour rate computed earlier was already $34.55. This would have brought the total labor rate to $52.78. With production and G&A costs included, the grand total would have come to $92.09 per hour.

Because such a rate would be unaffordable, NAWCWPNs, Pt. Mugu set a goal to zero the AOR by the end of FY-95 as shown in Table 6. Direct labor rates were increased in FY-93 to start recovering the $71 million AOR deficit. The figures used to determine the FY-93 AOR recoupment rate are shown in Table 7. A calculated average rate of $3.53 per hour was added to all direct labor hours in FY-93. Earlier in this

chapter (Section C, Stabilization Rates) the AMD's FY-93 estimated direct labor rate was calculated. The resulting figure was $23.75 per direct labor hour. This figure was only a calculation for the budget submission and could be modified in the process. Combining the estimated labor submission figure with the AOR figure will give approximately what should be charged for labor in FY-93.

$23.75 (FY-93 estimated budget submission labor rate)
+ $3.53 (AOR recoupment for FY-93)
$27.28 (Estimated total labor late to expect from OSD)

Table 7

FY-93 ACCUMULATING OPERATING RESULTS RECOUPMENT					
		DIRECT	ADDED/		CALCULATED
	TOTAL	LABOR	EXCLUDED	NET	AVERAGE
	COSTS	HOURS	HOURS	HOURS	RATE
AOR					
RECOUPMENT	$13,793,000	3,921,328	(10,230)	3,911,098	$3.53

The approved FY-93 stabilized direct labor rate for the AMD was actually $27.13, which included the AOR recoupment (see Table 3). It's still optimistic to expect full recovery of the AOR by FY-95. Unanticipated adjustments occur yearly for added and excluded labor hours, and rules change as to how charges or credits may be manipulated on the balance sheets.

These kinds of problems have arisen frequently over the past few years at the NAWCWPNs, Pt. Mugu because it hasn't been operating in a 100% DBOF environment. NAWCWPNs, Pt. Mugu is in a state of flux. There seems to be discrepancies and

confusion as to what is included in the DBOF and what is not. There is no single expedient way of clearing up the questions. Balance sheet problems concerning the NORs and AORs will probably persist until there is a full transition into the DBOF.

The NARs were affected greatly by the AOR recoupment charged in FY-93. The AORs recoupment was a major cost driver with a cost increase of $3.53 per hour. That, when added to the labor rate, equates to a 15% increase in the direct labor rate.

H. MAJOR RANGE AND TEST FACILITY BASE

NAWCWPNs, Pt. Mugu receives partial funding for some of its cost centers from the Major Range Test Facility Base (MRTFB). This has a major impact on the DBOF charges from the AMD. The MRTFB is described in OPNAVINST 3900.25B:

> The MRTFB is a national asset which shall be sized, operated, and maintained primarily for DoD test and evaluation (T&E) support missions, but also be available to all users having a valid requirement for its capabilities. The MRTFB consists of a broad base of T&E activities managed and operated under uniform guidelines to provide T&E support to DoD Components responsible for developing or operating material and weapons systems.

All DoD users of the MRTFB are required to pay for all direct costs associated with using the facilities, <u>excluding</u> military labor costs. What this means for the NAR squadrons is that any time they use the ranges at NAWCWPNs, Pt. Mugu they pay for all related direct costs. These costs come out

of their SAG CE funds. Funding for the MRTFB is further described in NAVAIRWARCENINST 7000.1:

> The MRTFB is funded under the Research, Development, Test and Evaluation (RDT&E) appropriation and is provided institutional funding on an annual basis to cover all overhead expenses associated with the maintenance and operations of the MRTFB cost centers. General purpose equipment and improvements and modernization of MRTFB are also institutionally funded.

The NAVAIRWARCENINST 7000.1 further states that the MRTFB covers only the ranges at NAWCWPN's, Pt. Mugu. This includes the maintenance and operations facilities at NAWCWPNs, Pt. Mugu that support the extensive ranges. These facilities include:

- NAWCWPNs MRTFB Management Office
- Sea Range Customer Office
- Range Operations Department
- Range Engineering Department
- Sea Range Directorate
- Range Safety
- Targets
- Weapons Department
- Air Operations Department
- Explosive Ordinance Devices Department
- **Aircraft Maintenance Department**

As shown above, the AMD is included in this funding. Any activity like the AMD that falls into the DBOF is prohibited from charging a customer for any of its costs which are funded or reimbursed from another source.

The MRTFB funds cover all of the AMD production and G&A expenses which it would otherwise charge to its customers. What does this mean for the NAR squadrons? The cost data gathered from the AMD revealed that the rates charged to the

NARs, in fact, have only been for direct labor. This situation remained unchanged even after the AMD transferred to the DBOF. Without the MRTFB funds the NAR squadrons would have been charged their fair share of production and G&A costs as required by the DBOF.

This also means that the assumption of COMNAVAIRESFOR as to why the DBOF costs were escalating was incorrect. The squadrons from the NAR probably have been getting a better deal than they originally thought. The NAR squadrons, for the most part, use the range facilities very little each year. It would seem that they should be paying for their appropriate share of production and G&A expenses for the maintenance periods not directly related to range use. These expenses would amount to adding the NAWCWPNs', Pt. Mugu standard G&A stabilized rate and the AMD's production stabilized rate. Using the stabilized rates for FY-93 the total cost of indirect overhead would have been:

G&A Stabilized Rate	$27.00
Production Stabilized Rate	$ 6.57
Total Indirect Stabilized Rate	$33.57

Total civilian labor hours of all AMD work centers	23,132
Indirect stabilized rate (from above)	x $33.57
Total indirect overhead costs	$776,541

That would have increased the NARs total charges for work performed by 124%.

I. MILITARY LABOR

The AMD consists of both military and civilian personnel. The DBOF includes any military labor charges used in producing a product or performing services. The NAR squadrons have also been getting a break for the military labor used in repairing their equipment. This again is due to the AMD falling under the MRTFB. The military labor used for supporting facilities of the MRTFB falls under the MPN appropriation.

Tables 8/9 reflect the military labor totals. Military labor also has developed stabilized rates for each year. They are divided into two rates, Officer and Enlisted. Using the military labor stabilized rates for FY-93 the total cost of military labor would have been:

Officer Stabilized Labor Rate	$48.71
Enlisted Stabilized Labor Rate	$21.89

The work centers involved consist of Enlisted only	$21.89
Total military labor hours of all AMD work centers	x 8,879
Total military labor costs	$194,361

The military labor costs would increase the NAR's labor bill by almost another 31%. This again goes back to the problem of everyone not being a member of the DBOF. If the MRTFB didn't include the AMD, military labor costs would have been charged to the NAR. This would have created a more serious funding shortage then currently exists.

Table 8

NAVAL AIR RESERVE PT. MUGU LABOR INFORMATION

	FY-93						FY-92					
HCS-5 WC	MIL HOURS	CIV HOURS	STAB RATE	NAR COSTS	AMD COSTS	AVER/RATE PER HOUR	MIL HOURS	CIV HOURS	STAB RATE	NAR COSTS	AMD COSTS	AVER/RATE PER HOUR
770	0	1,745	$27.13	$47,341.85	$50,277	$28.81	0	385	$21.67	$8,343	$10,429	$27.09
776	122	762	$27.13	$20,673.06	$18,524	$24.31	163	274	$21.67	$5,938	$6,306	$23.01
777	2,538	242	$27.13	$6,565.46	$5,809	$24.00	2,354	119	$21.67	$2,579	$2,660	$22.35
778	10	58	$27.13	$1,573.54	$1,302	$22.45	140	161	$21.67	$3,489	$3,549	$22.04
779	0	2,625	$27.13	$71,216.25	$59,921	$22.83	211	1,156	$21.67	$25,051	$24,544	$21.23
77A	0	0	$27.13	$0.00	$0	$0.00	0	1,618	$21.67	$35,062	$42,705	$26.39
TOTAL	2,670	5,432	$27.13	$147,370.16	$135,833	$25.01	2,868	3,713	$21.67	$80,461	$90,193	$24.29
VFA-305												
770	0	3,048	$27.13	$82,692.24	$82,525	$27.08	0	655	$21.67	$14,194	$17,278	$26.38
773	32	0	$27.13	$0.00	$0	$0.00	0	0	$21.67	$0	$0	$0.00
776	62	944	$27.13	$25,610.72	$21,911	$23.21	689	461	$21.67	$9,990	$10,351	$22.45
777	1,990	352	$27.13	$9,549.76	$8,152	$23.16	2,437	248	$21.67	$5,374	$5,385	$21.71
778	5	759	$27.13	$20,591.67	$18,239	$24.03	96	448	$21.67	$9,708	$10,380	$23.17
779	0	2,665	$27.13	$72,301.45	$59,919	$22.48	206	1,996	$21.67	$43,253	$42,716	$21.40
77A	0	0	$27.13	$0.00	$0	$0.00	0	2,472	$21.67	$53,568	$62,345	$25.22
TOTAL	2,089	7,768	$27.13	$210,745.84	$190,746	$24.56	3,428	6,280	$21.67	$136,088	$148,455	$23.64
VP-65												
770	0	2,551	$27.13	$69,208.63	$73,079	$28.65	0	627	$21.67	$13,587	$16,559	$26.41
775	215	372	$27.13	$10,092.36	$8,713	$23.42	229	103	$21.67	$2,232	$2,203	$21.39
776	97	821	$27.13	$22,273.73	$19,044	$23.20	1,279	575	$21.67	$12,460	$12,761	$22.19
777	3,778	2,590	$27.13	$70,266.70	$60,969	$23.54	4,833	2,329	$21.67	$50,469	$52,437	$22.51
778	30	638	$27.13	$17,308.94	$14,737	$23.10	116	779	$21.67	$16,881	$17,443	$22.39
779	0	2,960	$27.13	$80,304.80	$67,699	$22.87	129	1,673	$21.67	$36,254	$35,602	$21.28
77A	0	0	$27.13	$0.00	$0	$0.00	0	1,633	$21.67	$35,387	$44,611	$27.32
TOTAL	4,120	9,932	$27.13	$269,455	$244,241	$24.59	6,586	7,719	$21.67	$167,271	$181,616	$23.53
FY TOTALS	8,879	23,132	$27.13	$627,571	$570,820	$24.68	12,882	17,712	$21.67	$383,819	$420,264	$23.73
MIL&CIV HRS	32,011						30,594					

WORK CENTERS

770 QUALITY ASSURANCE
773 OMA LINE
775 IMA POWER PLANTS DIVISION
776 IMA AIRFRAMES
777 PME BRANCH/FIELD CAL ACTIVITY
778 IMA AVIATION LIFE SUPPORT SYSTEMS DIVISION
779 IMA SUPPORT EQUIPMENT DIVISION
77A IMRL/EQUIPMENT

Table 9

NAVAL AIR RESERVE PT. MUGU LABOR INFORMATION												
	FY-91						FY-90					
HCS-5	MIL	CIV	STAB	NAR	AMD	AVER/RATE	MIL	CIV	STAB	NAR	AMD	AVER/RATE
WC	HOURS	HOURS	RATE	COSTS	COSTS	PER HOUR	HOURS	HOURS	RATE	COSTS	COSTS	PER HOUR
770	0	434	$21.98	$9,539	$11,471	$26.43	0	435	$20.18	$8,778	$9,884	$22.72
776	241	112	$21.98	$2,462	$2,137	$19.08	148	107	$20.18	$2,159	$2,266	$21.18
777	2,141	399	$21.98	$8,770	$6,447	$16.16	3,208	233	$20.18	$4,702	$4,592	$19.71
778	410	71	$21.98	$1,561	$1,437	$20.24	623	125	$20.18	$2,523	$2,590	$20.72
779	286	1,217	$21.98	$26,750	$22,136	$18.19	434	849	$20.18	$17,133	$16,951	$19.97
77A	0	1,128	$21.98	$24,793	$26,875	$23.83	0	1,414	$20.18	$28,535	$30,256	$21.40
TOTAL	3,078	3,361	$21.98	$73,875	$70,503	$20.98	4,413	3,163	$20.18	$63,829	$66,539	$21.04
VFA-305												
770	0	405	$21.98	$8,902	$10,189	$25.16	5	387	$20.18	$7,810	$9,160	$23.67
773	0	0	$21.98	$0	$0	$0.00	0	0	$20.18	$0	$0	$0.00
776	762	276	$21.98	$6,066	$5,970	$21.63	2,093	514	$20.18	$10,373	$10,199	$19.84
777	2,583	334	$21.98	$7,341	$7,262	$21.74	4,840	855	$20.18	$17,254	$17,907	$20.94
778	395	336	$21.98	$7,385	$7,367	$21.93	467	346	$20.18	$6,982	$6,965	$20.13
779	217	1,293	$21.98	$28,420	$26,303	$20.34	398	1,419	$20.18	$28,635	$27,666	$19.50
77A	0	1,632	$21.98	$35,871	$37,804	$23.16	0	1,613	$20.18	$32,550	$34,006	$21.08
TOTAL	3,957	4,276	$21.98	$93,986	$94,895	$22.19	7,803	5,134	$20.18	$103,604	$105,903	$20.63
VP-65												
770	0	554	$21.98	$12,177	$13,959	$25.20	0	485	$20.18	$9,787	$10,896	$22.47
775	0	162	$21.98	$3,561	$3,270	$20.19	280	361	$20.18	$7,285	$774	$2.14
776	1,404	461	$21.98	$10,133	$9,858	$21.38	1,518	912	$20.18	$18,404	$9,515	$10.43
777	6,311	2,352	$21.98	$51,697	$50,660	$21.54	8,900	3,014	$20.18	$60,823	$60,972	$20.23
778	394	429	$21.98	$9,429	$9,013	$21.01	1,236	645	$20.18	$13,016	$12,079	$18.73
779	235	1,366	$21.98	$30,025	$28,065	$20.55	312	1,176	$20.18	$23,732	$22,786	$19.38
77A	0	1,115	$21.98	$24,508	$29,330	$26.30	0	1,167	$20.18	$23,550	$27,418	$23.49
TOTAL	8,344	6,439	$21.98	$141,529	$144,155	$22.39	12,246	7,760	$20.18	$156,597	$144,440	$18.61
FY TOTALS	15,379	14,076	$21.98	$309,390	$309,553	$21.99	24,462	16,057	$20.18	$324,030	$316,882	$19.73
MIL&CIV HRS	29,455						40,519					

J. DBOF LABOR ANALYSIS

Since it was determined we are only looking at direct labor rate cost increases concerning the NAR squadrons, further data was collected from the NAR, NAWCWPNs, Pt. Mugu's Comptroller and the AMD. The results are shown in Tables 8/9. The data for labor hours prior to FY-90 was incomplete and unreliable. Data for FY's 91-92 had some minor discrepancies; FY's 92-93 is considered accurate. The data will be analyzed from different points of interest.

1. Maintenance Hours

The most obvious reason for an increase in the NAR's costs is the increasing number of hours of total maintenance. For instance, one squadron, VP-65 had a major aircraft modification upgrading its aircraft to the P-3C update 2 in FY-90 through FY-91. The other squadrons have also experienced consistently more maintenance work performed as reflected in the total combined hours from FY-91 to the present. The AMD suggested part of that increase resulted from its increased training for proper job order documentation in the work center. Previous AMD administrative inspections purportedly showed that some of the work centers were not documenting the proper accounts for work performed on the NAR's equipment. There was no corroborative evidence of AMD's assertion. How much of an increase that has resulted is only a guess.

A major cause of the increasing labor costs can be attributed to the declining "free" military labor. The AMD military onboard numbers have dramatically declined since FY-90. The Enlisted numbers, in particular, are important to consider for the NARs cost figures. All of the military labor performed in the AMD work centers for the NAR are Enlisted labor hours. The AMD was manned in the fourth quarter FY-93 with the military personnel numbers in Table 10.

Table 10

TOTAL		OFFICERS		ENLISTED	
BILLET	ONBOARD	BILLET	ONBOARD	BILLET	ONBOARD
346	267	13	12	333	255

Enlisted manning is presently at only 77%. In FY-92 the manning was down to almost 60%. The bottom of Tables 8/9 show the FY total military and civilian labor hours. The ratio of labor hours between the two groups has been shifting. The total number of military labor hours were at their greatest in FY-90 and have been declining ever since. The opposite holds true for the civilian labor hours. Since the labor time each year has been shifting more to the civilian work force, the NAR has been paying for increased hours. That would quickly escalate the cost to the NAR for services even if the amount of total labor hours did not increase each year. These figures are summarized in Table 11.

Table 11

FY-93	FY-92	FY-91	FY-90
8,879 MIL HRS	12,882 MIL HRS	15,379 MIL HRS	24,462 MIL HRS
23,132 CIV HRS	17,712 CIV HRS	14,076 CIV HRS	16,057 CIV HRS
27.7% MIL/CIV	42.1% MIL/CIV	52.2% MIL/CIV	60.4% MIL/CIV

While the NAR was getting a good deal for not having to pay for military labor in the past, this has changed with the shifting labor ratios. That shift is now the greatest cost driver for the NAR. Table 12 shows the effect of the shifting labor ratios on the NAR's costs. The top half of Table 12 starts with the FY-90 civilian to military labor hours ratio at the AMD. At that time 39.63% of all labor hours were performed by civilian labor. If that percentage had remained constant every year through FY-93, what would the cost variance have been? The chart assumes the amount of actual historic FY total labor hours would have remained the same each year whether performed by civilian or military labor. The new "total civilian hours to bill" is the result of taking 39.63% (FY-90 civilian ratio) of the "total hours." Applying the "stabilization rates" to the "total civilian hours to bill" determines what the "NAR would have paid." Savings is the resulting difference from what the "NAR actually paid." If the civilian labor ratio had stayed

constant at the FY-90 ratio of 39.63% the NAR would not have had an 82.34% increase in its bill over the four year period.

Table 12

NAWC WPNs SHIFTING MILITARY TO CIVILIAN LABOR				
FY-90 RATIO USED AS CONSTANT BASE YEAR				
	FY-93	FY-92	FY-91	FY-90
MILITARY HOURS	8,879	12,882	15,379	24,462
CIVILIAN HOURS	23,132	17,712	14,076	16,057
TOTAL HOURS	32,011	30,594	29,455	40,519
FY-90 CIV RATIO	39.63%	39.63%	39.63%	39.63%
TOTAL CIV HRS TO BILL	12,686	12,124	11,673	16,057
STABILIZATION RATE	$27.13	$21.67	$21.98	$20.18
NAR WOULD HAVE PAID	$344,170	$262,736	$256,573	$324,030
NAR ACTUALLY PAID	$627,571	$383,819	$309,390	$324,030
SAVINGS	$283,401	$121,083	$52,817	$0
% INCREASE IN BILL	**82.34%**	**46.09%**	**20.59%**	**0.00%**
COST INCREASE FROM RATIO CHANGE EACH FY				
MILITARY HOURS	8,879	12,882	15,379	24,462
CIVILIAN HOURS	23,132	17,712	14,076	16,057
TOTAL HOURS	32,011	30,594	29,455	40,519
CURRENT FY CIV RATIO	72.26%	57.89%	47.79%	39.63%
% RATIO CHANGE BETWEEN FY	14.37%	10.11%	8.16%	0
FY CIV HRS INCREASE DUE TO RATIO	4,600	3,092	2,403	0
STABILIZATION RATE	$27.13	$21.67	$21.98	$20.18
FY COST INCR. FROM RATIO CHANGE	$124,788	$66,997	$52,828	0
NAR ACTUALLY PAID	$627,571	$383,819	$309,390	$324,030
NAR WOULD HAVE PAID	$502,783	$316,822	$256,562	$324,030
% INCREASE IN BILL	**24.82%**	**21.15%**	**20.59%**	**0.00%**

The bottom of Table 12 reflects the yearly percent increase in the costs of the NAR resulting from the change of the ratios between each FY. It breaks out more clearly what is happening to the cost of the NARs each year due to decreasing military labor hours and increasing civilian labor

hours. For FY-93 almost 25% of the increase in cost can be attributed to this labor shift.

2. Labor Cost Variances

The total costs of labor the NARs are charged and the actual costs of labor for the AMD results in different degrees of variance. Using FY-93 figures summarized in Table 13 as an example, the NAR's costs were $627,571 and the AMD's costs were $570,820. This means the reserves actually paid $56,751 more than the actual labor costs in the respective shops. This FY, in particular, has had a large variance because of the AOR recoupment being included in the labor rate. By removing the $3.53 recoupment from the labor stabilized rate of $27.13, the stabilized rate for labor is actually $23.60. The AMD FY-93's labor rate averaged $24.68 (only the shops doing the NARs maintenance). The variance of $1.08 per hour is a result of the stabilized labor rate being used as the basis to charge the NARs.

Table 13

THE AMD LABOR COST VERSUS THE NAR COST

FY	CIV HOURS	STAB RATE	NAR COSTS	AMD COSTS	AMD AVG HR RATE	CHARGE VARIANCE
93	23,132	$27.13	$627,571	$570,820	$24.68	$56,751
92	17,712	$21.67	$383,819	$420,264	$23.73	($36,445)
91	14,076	$21.98	$309,390	$309,553	$21.99	($163)
90	16,057	$20.18	$324,030	$316,882	$19.73	$7,148

The AMD labor stabilization rate ($23.60 with recoupment removed) is based on an average of all the work

centers' production labor rates.[10] The work centers where the NAR's work was performed makes up only a part of AMD. Thus, the salaries of the work centers completing the work for the NAR average more than the average of the whole AMD in FY-93.

Some years the NAR pays more than the AMD costs and some years the NAR pays less. This variance is hard to avoid with the estimated budget figures developed so far in advance. Factors such as pay increases, promotions, labor turnover etc., all have to be accurate for the stabilized rate and the real labor costs at the AMD to match.

K. SUMMARY OF COST DRIVERS

This chapter has looked at how different cost drivers affecting the NAR were determined. The major factors recapped are:

- Labor acceleration
- Annual pay raises
- AORs recoupment
- Changing ratio between total military labor hours and civilian labor hours each year
- Increase in total maintenance hours each year

[10]Discussed earlier in the chapter under Section D. STABILIZATION RATES.

Also shown was the areas where military and civilian labor are charged, and that indirect costs are not charged to the NAR. Organizing and combining the pertinent data discussed earlier can be seen in Table 14. Although previously determined cost increases do not match up exactly to the actual total cost increases to the NARs, they follow close enough to see what the greatest cost drivers are to the NAR.

Table 14

SUMMARY OF NAR COST DRIVERS				
	FY-93	FY-92	FY-91	FY-90
ACCELERATION	1.00%	1.00%	1.30%	2.70%
PAY RAISES	12.10%	3.60%	3.40%	4.10%
AOR RECOUPMENT	15.00%	0.00%	0.00%	0.00%
CIV HOURS RATIO	24.82%	21.15%	20.59%	0.00%
INCREASE TOTAL HR	4.60%	3.90%	-27.31%	0.00%
TOTAL	**57.52%**	**29.65%**	**-2.02%**	**6.80%**
ACTUAL INCREASE	63.51%	24.06%	-4.52%	

The most surprising cost driver from the analysis was the changing ratio between the military and civilian labor hours. This ends up being the biggest cost driver and the one overlooked by everybody. Figure 4 graphs the results and distinguishes the cost drivers. Second to the changing labor ratios is the AOR recoupment in FY-93. That cost, combined with the annual pay increase of 12%, played a large part in the big overall cost totals in FY-93.[11]

[11]Includes COLA.

The main causes for the NAR's present cost increases have been highlighted in this chapter. Caution and planning should be taken for possible large future cost growth to the NARs. That could result from further incorporation of the DBOF at the NAWCWPNs, Pt. Mugu.

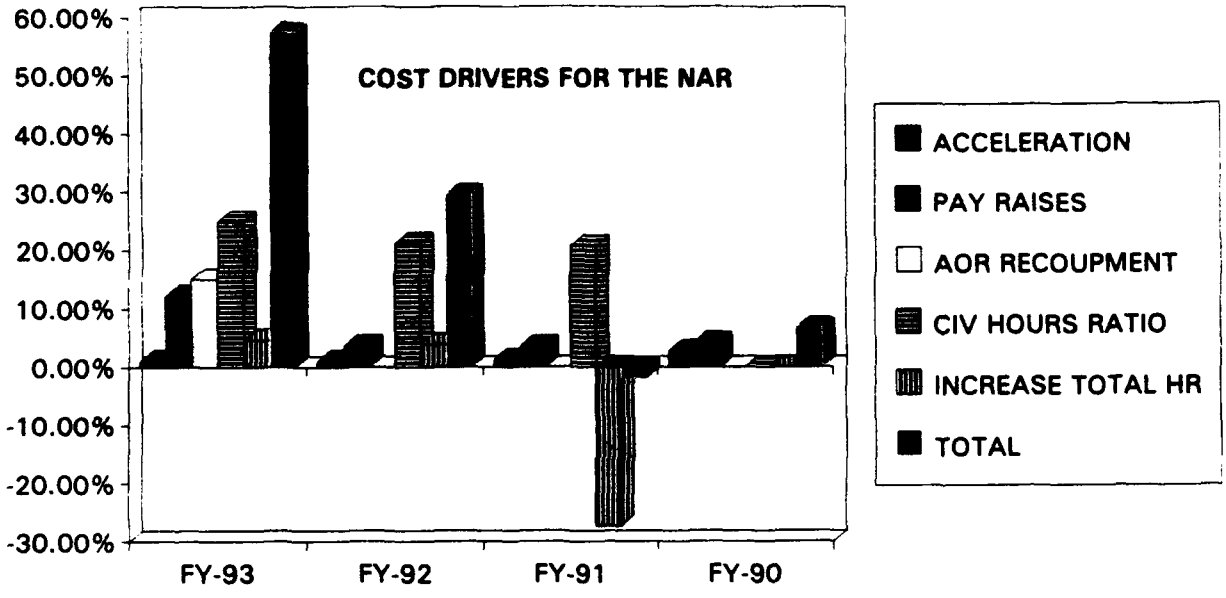

Figure 4

VI. CONCLUSIONS AND RECOMMENDATIONS

Although there is a major funding shortage from the NAR Pt. Mugu view, the funding gap from the COMNAVAIRESFOR point of view is still small compared to their other budget concerns. The COMNAVAIRESFOR overall O&M,NR budget for FY-93 totaled $276 million (see Figure 5). The FY-93 DBOF charges equaled approximately .002% of their total budget. Other COMNAVAIRESFOR program problems affect a much larger share of

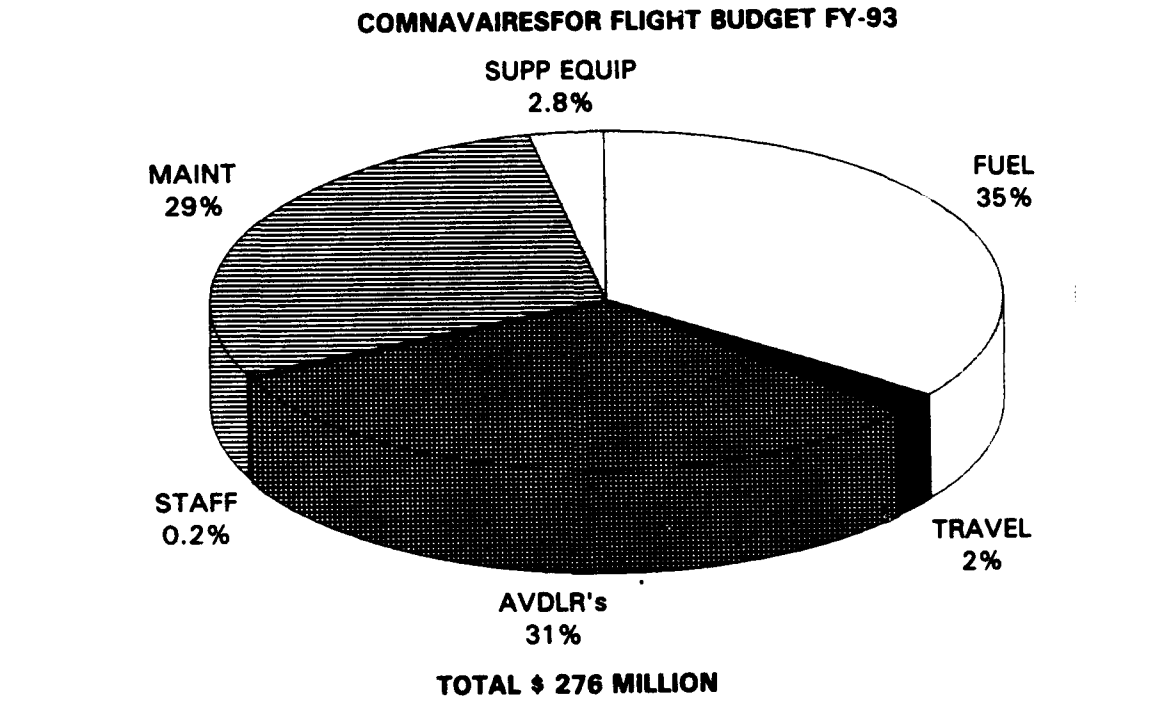

Figure 5

the budget. For this reason the funding shortage at Pt. Mugu will probably continue unless this problem moves up on the priority list.

The majority of the rising costs of the NAR results directly from conflicts of working in two different funding systems. The number one cost driver of shifting labor time hour ratios would not be as great a problem if the AMD had all its military billets manned. The NAR probably would now be paying for military labor if it weren't for the MRTFB including the AMD. The question still remains if the NAR should be paying the indirect costs at the AMD for their squadrons' maintenance not related to the range use. This amounts to almost all of their maintenance hours. If they were charged for G&A and production expenses, it would almost double their present costs.

From the NAR viewpoint, all of the DBOF charges seem unfair since they are not funded for them properly. This again goes back to the basic problem of dealing within two different funding and cost systems. Since the NAR squadrons are a tenant at the NAWCWPNs, Pt. Mugu, they have little choice but to go along with the DBOF charges.

The NAR needs to incorporate the cost drivers discussed herein into their budget estimates to improve their situation in the future. The big problem for the NAR has been that budget estimates made in the past for the present come up short because of the unanticipated changing labor ratios.

This problem shouldn't be as big a factor in the future with the onboard numbers of the military presently increasing at the AMD. Until the budget process catches up with more accurate estimates of the actual costs, COMNAVAIRESFOR will have to keep helping the NAR at Pt. Mugu by shifting money from other programs.

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